

RECLAMATION

Managing Water in the West

Fort Bidwell Indian Community Well Development and Water Storage Tanks for Fire Suppression

Fort Bidwell, California

Environmental Assessment



U.S. Department of the Interior
Bureau of Reclamation

July 2010

Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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1.0 Purpose and Need

1.1 Introduction

Under the *State's Emergency Drought Relief Act of 1991* as amended (Public Law [P.L.] 109-234), the Bureau of Reclamation (Reclamation) is distributing \$40 million from the American Recovery and Reinvestment Act (ARRA) (P.L. 111-5) to fund emergency drought relief projects. In February 2009, while the State of California was in its third consecutive year of drought, Governor Arnold Schwarzenegger declared a drought emergency.

The Fort Bidwell Indian Community (Tribe) is a federally recognized Indian Tribe. The Fort Bidwell Indian Reservation (Reservation) is located on the eastern slope of the Warner Mountains in the northeast corner of Modoc County, California (Figure 1). The Reservation was established by Executive Order on October 9, 1866. The Reservation is located in a remote and isolated portion of northern California, and is approximately 3,500 acres in size. The Tribal government was established on January 28, 1936 under the Indian Reorganizational Act of 1934. The Tribe has approximately 350 members, although only about 160 currently reside on the Reservation (FBIC, 2009 and Brooks et al, 2010).

1.2 Purpose and Need

The purpose of the project is for Reclamation to provide ARRA funds to the Tribe for the purposes of drilling test wells, developing one as a production well, installing water storage tanks, electrical power and water pipelines.

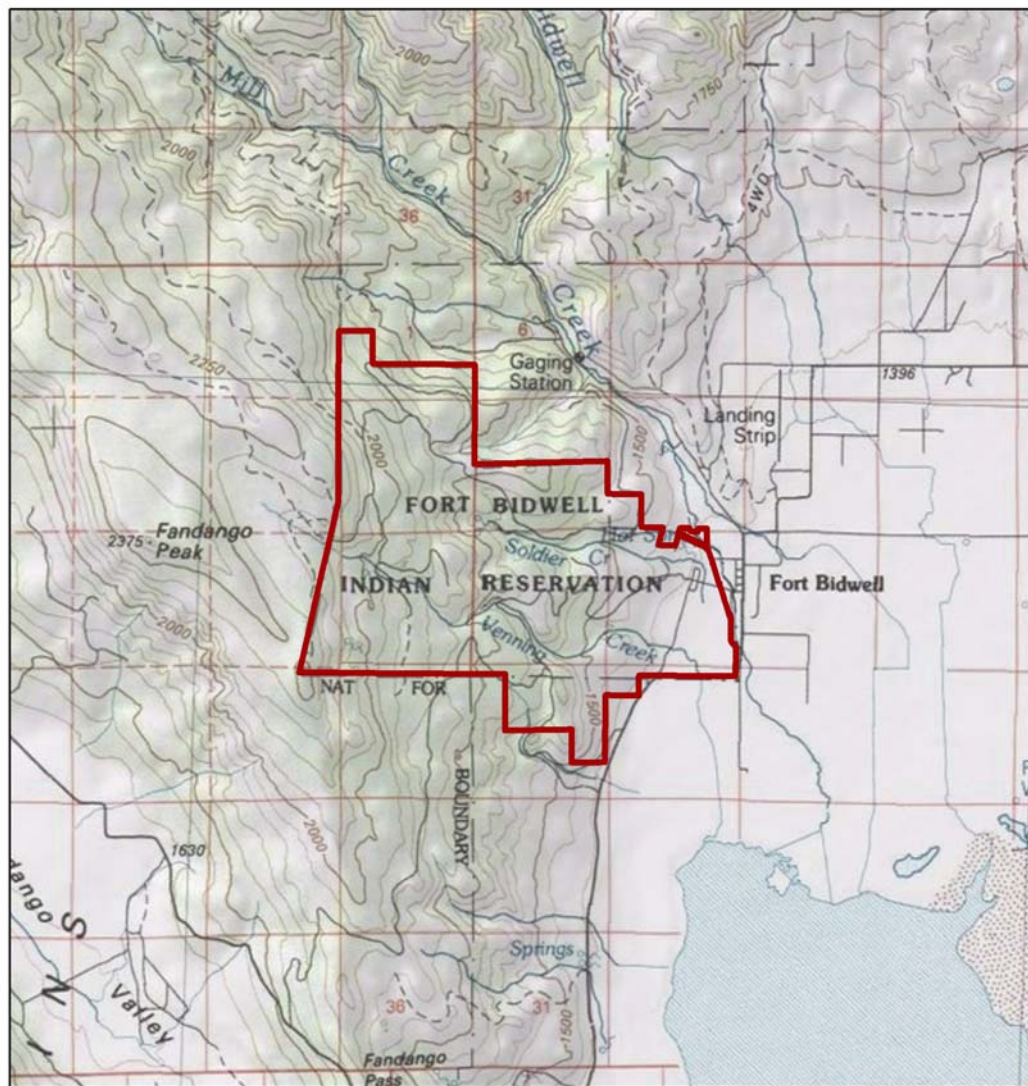
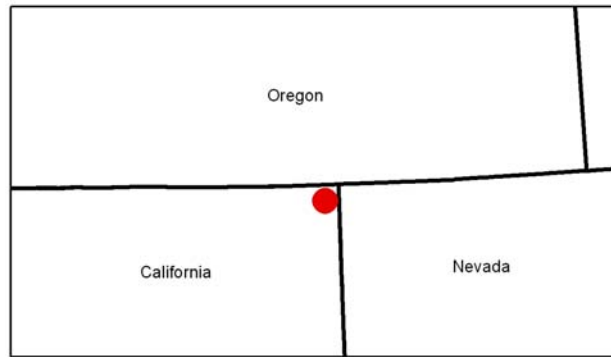
Three springs located at the uppermost reach of Soldier Creek supply water to the Tribe for drinking purposes. Spring water is delivered via a water system constructed for the military fort in 1885. Distribution lines were installed at a later date. A water treatment plant was installed in 2003. Drinking water is stored in a 103,000 gallon glass-lined storage tank that was installed in 1972.

Venning and Bidwell Creeks provide water for irrigation purposes, through a network of old, earthen, irrigation canals.

The Tribe stores water for all purposes in the storage tank. The Tribe has identified this as a serious problem. If a wildfire breaks out, water to suppress the fire is drawn from the storage tank used for drinking water. If too much water is drawn for fire suppression, it can reduce and potentially cut-off water temporarily for drinking and irrigation purposes until the tank replenishes.

The Tribe proposes to drill one new well and install water storage tanks for the purposes of fire suppression. Power would be supplied to the new production well, and water pipelines would be installed to convey water to the holding tanks, an adjacent housing area and fire station (FBIC, 2009, and Brooks et al, 2010).

This environmental assessment (EA): (1) describes the existing environmental resources in the project area; (2) evaluates the effects of the alternatives (including the Proposed Action) on the resources; and, (3) proposes measures to avoid, minimize, or mitigate any adverse effects. This EA is in compliance with the National Environmental Policy Act (NEPA) and Council on Environmental Quality (CEQ) regulations (40 CFR 1500-1508).



All maps are for general depiction purposes only.

Figure 1, Vicinity Map

2.0 Alternatives

2.1 Alternative 1 - No Action

Under the No Action alternative, Reclamation would not provide funds to the Tribe under ARRA to establish a new well and water storage tanks for fire suppression purposes.

2.2 Alternative 2 - Proposed Action

The Proposed Action is for Reclamation to provide ARRA funds to the Tribe to establish a new well and water storage tanks for fire suppression purposes.

Work Period. All elements of the Proposed Action would take place prior to December 1, 2010 or prior to September 30, 2011. Total time to implement the Proposed Action is estimated to be between 60 and 90 days.

Test Wells. There is an existing, non-Tribal well located west of the cemetery (Figure 2). The number of test wells that may be drilled is anticipated to be one to three. Ideally the first successful test well would be developed into the production well. The work area for the test wells is located south of the cemetery (Figure 2). Once a test well has passed water quality testing, and has met minimum output needs (300 gallons per minute [gpm]), the well would be made operable by installing a submersible pump, electrical power supply and housing. Test wells are anticipated to be up to 400 feet deep. This EA considers the worst-case scenario because no project-level design has been prepared for Proposed Action.

The work area, approximately eight acres in size, encompasses the area where staging, access, drilling of test wells, development of a production well, and potential siting of water storage tanks will occur (Figure 2).

Water Storage Tanks. The Proposed Action includes the installing water storage tanks. The tanks would be purchased from a commercial vendor and most likely be made of polyethylene. The water storage tanks would be placed on concrete pads no larger than 225 square feet in size. Underground pipelines from the production well to the water storage tanks would be installed. The number, size and placement of water storage tanks has not been determined. The Tribe is seeking to have a total storage capacity of 20,000 gallons. Several options are being considered: 1) place four 5,000 or two 10,000 gallon water storage tanks next to the production well (Figure 2); or place four 5,000 or two 10,000 gallon water storage tanks next to the existing water storage tank (Figure 3) or a combination of 1) and 2) for a total 20,000 gallon capacity (Brooks et al, 2010). This EA considers the worst-case scenario because no project-level design has been prepared for the Proposed Action.

The work area adjacent to the existing water storage tank is approximately five acres. The area is large enough to encompass staging, access, and potential siting of water storage tanks (Figure 3).

Water Pipelines. The Proposed Action is to construct a water pipeline from the new production well to the water storage tanks. The pipeline is anticipated to be two to four inches in diameter, placed two to four feet deep in the ground. The precise route has not been determined, however several corridors have been identified in Figure 3. The pipeline corridors evaluated are 100 feet wide. The Tribe is also considering two additional pipeline spurs. A spur to the fire station (D in Figure 3) would be connected to a standpipe to refill firefighting equipment. A spur to the rear of a housing area (E in Figure 3) would be connected to an existing fire hydrant. Table 2-1 describes the potential corridors for the water pipelines.

Table 2-1, Potential Water Pipeline Corridors

Map Label	Description	Length (in Feet)
A*	Along existing access roads.	2,365
B*	From production well directly to existing storage tank site via old trail.	1,175
C*	Partly along access roads, then across a former trail.	1,220
D	Spur from existing pipeline to fire station.	500
E	Spur from existing pipeline to rear of housing area.	1,293

* Only one corridor would be selected. This table represents the options being considered.

The Tribe is also considering two other locations for the standpipes. These sites are located along pipeline corridor B. The site for the standpipe would consist of a parking spur to allow for the firefighting equipment to pull up to the standpipe and refill with water. The standpipe site/parking area would not exceed approximately 3,600 square feet.

Electrical Power. Electrical power (three phase) would be necessary to make the production well fully operable. The Tribe is considering two options for the power supply. The first option would connect electrical power from the transformer located adjacent to the existing water storage tank. Underground powerlines would be run to the production well, most likely from within the same trench that houses the water pipeline (Labeled A to C in Figure 3). If the Tribe selects the option of placing the standpipes near Soldier Creek, underground electrical service to the well site would still be needed. The most likely route is corridor B.

Another option would be for power to be brought in from the cemetery area where existing overhead single phase power is available. If that service could be upgraded to three phase, pending a discussion with the local power company, it could provide power to the production well (Brooks et al, 2010).

The work area described in Test Wells includes the area where a potential powerline from the existing single phase power tie-in could occur, if this option were selected. Underground powerlines would run along the west side of the cemetery for 1,068 feet (as shown in Figure 2). This EA considers all options.

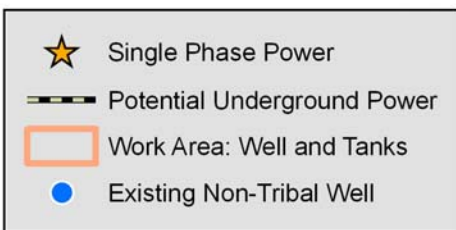


Figure 2, Well and Water Storage Tanks Site



Figure 3, Pipeline Corridors

3.0 Affected Environment & Environmental Consequences

3.1 Resources Considered

Evaluation of the Proposed Action indicates the following resources could be affected by the project:

- wildlife and vegetation
- cultural resources
- water resources
- environmental justice
- Indian Trust Assets

Analysis of effects is based upon NEPAs *context* and *intensity* as described in 40 CFR 1508.27.

3.2 Resources Not Analyzed in Detail

Evaluation of the Proposed Action indicates that there would be little to no indirect, direct or cumulative effects on several resources. The resources include:

- air quality
- geology and soils
- hazards and hazardous materials
- noise
- mineral resources
- traffic and transportation
- recreation
- agricultural resources
- land use
- public services
- utilities
- climate change
- socioeconomics

As a result, these resources are not discussed further in this EA.

3.3 Wildlife and Vegetation

3.3.1 Affected Environment

Setting. The Reservation is located in northeastern California in Modoc County. The Warner Mountains and Modoc National Forest are located on the western boundary. The Reservation ranges in elevation from nearly 7,000 feet in the west to 4,500 in the east (and project area). The

area is in the Modoc Plateau province, and has annual precipitation ranging from 16 inches in the Warner Mountains to six inches in the project area.

Vegetation. The project area is in the rain shadow of the Warner Mountains, and the vegetation is a mixed juniper/sagebrush community. The most common tree in the project area is the western juniper (*Juniperus occidentalis*). The tree cover is open, interspersed with Great Basin sagebrush (*Artemisia tridentata*), rabbitbrush (*Chrysothamnus parryi*), and non-native annual grasses. Soldier Creek runs through the project area and supports a higher density of vegetation, primarily brush.

Wetlands. There are no wetlands in the project area.

Wildlife. A variety of wildlife may use the habitats that occur on the Reservation. The following are typical of the animals found in the project vicinity: mule deer (*Odocoileus hemionus*), pronghorn (*Antilocapra americana*), sage grouse (*Centrocercus urophasianus*) and western gray squirrel (*Sciurus griseus*).

Special-Status Species. The California Natural Diversity Database (CNDDB) and U.S. Fish and Wildlife Service websites were reviewed for the potential occurrence of federally-listed special-status species. No special-status wildlife species have been recorded within a five mile radius of the project area (CNDDB, 2010, USFWS, 2010).

3.3.2 Environmental Consequences

No Action

Under the No Action alternative, Reclamation would not provide funds under ARRA for the purposes of establishing a new well and water storage tanks for fire suppression purposes. Without the additional infrastructure, in the event of drought or wildfire, the Tribe may be unable to provide reliable drinking water, or sufficient water for fire suppression. There would be no impacts to wildlife and vegetation under the No Action alternative.

Proposed Action

The Proposed Action is for Reclamation to provide ARRA funds to the Tribe to establish a new well and water storage tanks for fire suppression purposes.

Vegetation. All elements of the Proposed Action would occur within a vegetation community made up of juniper and sagebrush. This habitat is relatively abundant in the region, and is not considered a sensitive resource. The production well site is primarily sagebrush and annual grasses. During construction, equipment and vehicles would use existing access roads, although there would be some traffic over the annual grasses. The production well site and sites for the water storage tanks would be permanently impacted, but it would be limited to approximately 225 square feet for each. If a standpipe site is selected near Soldier Creek, there would be an area permanently impacted approximately 3,600 square feet in size.

The pipeline corridors (A, B or C) consist of a mixture of brush, annual grasses, and some trees. Pipeline corridor A would have the greatest impact to the vegetation because it would follow a mostly undisturbed corridor and would require the greatest amount of removal of vegetation. Pipeline corridor B partly follows an access road then proceeds on an old trail. The trail is mostly grown over, so the impacts to the vegetation would be moderate. Pipeline corridor C would follow existing roads and would cause the least impacts on vegetation due to the disturbed nature of the area. Equipment used during construction of the pipeline would remove vegetation and any trees. This would leave a scar that would become less visible over time. Pipeline corridors D and E are primarily in grassland areas, so impacts to vegetation is very limited.

Pipeline corridors A, B and C cross Soldier Creek. Vegetation density is higher along the streamside. Pipeline corridors A and B have the greatest potential to impact the stream because of the vegetation density and the undisturbed setting. No project-level design has been completed for the pipelines. Loss of scrub or brush vegetation where the pipeline crosses the creek could increase light penetration, slightly increasing water temperature. The loss of vegetation adjacent to the streamside could also increase erosion and sedimentation. As grasses and other plants return to the area over time, this minor impact would be reduced.

As described in Table 3-1, there would be permanent loss of .02 acre of juniper and sagebrush, and .07 acre of sagebrush/annual grasses as a result of the Proposed Action. The permanent loss of this habitat type would have a negligible impact on vegetation in the project area. Depending on which pipeline corridor is selected (A, B or C), there could be a temporary impact of up to 23 acres of vegetation made up of juniper, sagebrush, and annual grasses. While annual grasses can recover within one year, sagebrush is unlikely to recover fully for three to five years. Any trees removed would take a longer period of time to recover.

Table 3-1 Habitat Type and Impacts

Activity	Habitat Type	Temporary Impact	Permanent Impact
Test wells/well site & water storage tanks	Juniper/sagebrush	14 acres	.02 acre
Water pipelines/electrical power (A, B or C)	Juniper/sagebrush	2 to 5 acres	none
Water pipelines (D & E)	Sagebrush/annual grasses	4 acres	none
Standpipe site	Sagebrush/annual grasses	none	.07 acre
Totals		20 - 23 acres	.09 acre

Wetlands. There are no wetlands in the project area. The Proposed Action would have no impact on wetlands.

Wildlife. During construction, there would be a minor increase in personal and vehicle traffic in the work area. Open juniper forests and sagebrush are considered to be medium quality wildlife

habitat. During construction, wildlife is likely to avoid foraging or migrating through the area. Work is expected to occur during the summer or fall, a period that wildlife uses this area most. Up to 23 acres of open juniper forests, sagebrush and annual grasses would be disturbed, depending on the pipeline corridor selected (A, B or C). As the sagebrush community recovers, associated wildlife would eventually return to the area for foraging. The result is to have a temporary, negligible impact on wildlife.

The Soldier Creek lacks enough year round volume and pools to support trout. The Proposed Action, however, would implement best management practices to ensure that increased sedimentation does not occur that could affect aquatic life.

Implementation of the Proposed Action, specifically construction of trenches for underground powerlines and/or water pipelines, could result in the loss of some trees, potentially used for nesting by migratory birds. Pre-construction surveys for nesting birds will be conducted, and measures to minimize or avoid impacts will be implemented as needed.

Special-Status Species. No documented observations of special-status species has occurred in the project area. The Proposed Action would have no impact on special-status species.

Cumulative Effects

The Proposed Action is for Reclamation to provide ARRA funds to the Tribe to establish a new well and water storage tanks for fire suppression purposes. The construction of a new well, water pipelines and water storage tanks is a short-term project. There would be a temporary loss of vegetation, composed mainly of sagebrush, shrubs and annual grasses along the pipeline corridors. Perennial plants such as sagebrush could take three to five years to recover. There would be a negligible permanent loss of vegetation and wildlife habitat at the well and storage tank sites. The Proposed Action would have no significantly cumulative impacts on wildlife and vegetation.

3.4 Cultural Resources

3.4.1 Affected Environment

A cultural resource is a broad term that includes prehistoric, historic, architectural, and traditional cultural properties. The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation that outlines the Federal Government's responsibility to cultural resources. Section 106 of the NHPA requires the Federal Government to take into consideration the effects of an undertaking on cultural resources listed on or eligible for inclusion in the National Register of Historic Places (NRHP). Those resources that are on, or eligible for inclusion on, the NRHP are referred to as historic properties.

The Section 106 process is outlined in the Federal regulations at 36 Code of Federal Regulations (CFR) Part 800. These regulations describe the process that the Federal agency (Reclamation) takes to identify cultural resources and the level of effect that the proposed undertaking would have on historic properties. In summary, Reclamation must first determine if the action is the

type of action that has the potential to affect historic properties. If the action is the type of action to affect historic properties, Reclamation must identify the area of potential effects (APE), determine if historic properties are present within that APE, determine the effect that the undertaking would have on historic properties, and consult with the State Historic Preservation Office (SHPO), to seek concurrence on Reclamation's findings. In addition, Reclamation is required through the Section 106 process to consult with Indian Tribes concerning the identification of sites of religious or cultural significance, and consult with individuals or groups who are entitled to be consulting parties or have requested to be consulting parties.

In an effort to identify historic properties, a Reclamation Archaeologist searched the cultural resources files located at the Bureau of Indian Affairs. Reclamation initiated an expedited records search by the Northeastern Information Center in Chico, California on April 9, 2010 for the APE. Reclamation contracted ICF International, who conducted cultural resources surveys of the APE on June 24, 2010 (Crawford 2010).

Three cultural resources were identified during survey. Portions of a previously recorded occupation site/lithic scatter (CA-MOD-440) were relocated and a historic refuse scatter (FTS-1) and historic water storage tank (FWS-1) were recorded within the APE (Crawford 2010:4-1 and Figure 3a). Site CA-MOD-440 was originally recorded in 1976 and rerecorded several times since then. The site was described as an occupation site with a very light-to-moderate density lithic scatter. Artifacts and features described at that time included a Northern Side Notch projectile point, three or four bedrock milling stones, a portable milling stone, ground stone fragments, two rock-lined pits in the northwest portion of the site. Vaughan (2006) (see Crawford 2010) noted that roads and firebreaks had been constructed through the site, and a borrow pit developed in the area of the reported stone-lined pits next to a dirt road.

ICF International archaeologists relocated three portions of site CA-MOD-440. Three bedrock milling features and a portable milling stone were observed on an east-facing slope below the dirt road leading to the existing water tank. Additional small bedrock milling features appear to have been piled together down slope of the dirt road, likely the result of road grading and/or firebreak maintenance. One biface fragment and two pieces of debitage, all of black obsidian, were observed east of the water tank and just north of the dirt road; an additional black obsidian biface fragment was observed southeast of the chlorination structure. The portion of site CA-MOD-440 relocated during the current study lies within an area of heavy disturbance most likely resulting from road and firebreak construction and maintenance, and development of a borrow site. Additionally, the water pipeline connecting the water tank to the community of Fort Bidwell was constructed through the site. The current east-west segment of the dirt access road to the water tank is located over the water pipeline alignment. The site was recommended eligible for listing on the National Register of Historic Places by Fowler (1977) and Vaughan (2006), and Crawford (2010). Given the nature of the relocated portions of this site, and that the potential power line route will be located within the existing dirt road, Reclamation concluded that there will be no adverse effects to historic properties pursuant to 36 CFR Part 800.5(b).

The historic refuse scatter (FTS-1) consists of contains approximately 50 cans (approximately 22 solder top cans, 25 sanitary cans, one Hills Bros. coffee can, two Spam tins, one oil can with spout); five pieces of glass (one green "Fire King Ware" jadeite mug handle fragment [later

1940s]); one Owens Illinois Duraglass bottle (manufactured in Oakland, 1950); one glass jar with green metal screw top printed with “One of Durkees Famous Foods;” two clear glass fragments; one metal tricycle frame; and one blue enameled metal bowl (Crawford 2010:4-2). The site appears to be the result of a single dumping event dating from the late 1940s to the early 1950s. This site was not evaluated for inclusion on the National Register of Historic Places because the potential power line route will be situated south of the site boundaries.

Site FWS-1 is a semi-subterranean water storage structure built in the 1880s to supply water to the Fort Bidwell Military Reservation (Crawford 2010:4-2). The structure sits next to the community’s modern water tank and storage shed. This site was not evaluated for inclusion on the National Register of Historic Places because all project activities will avoid the site because it is removed from the point of power line connection.

Consultation. Reclamation sent a letter to the Fort Bidwell Indian Community on July 23, 2010 to invite their assistance in identifying sites of religious and cultural significance pursuant to the regulations at 36 CFR 800.3(f)(2) and 36 CFR Part 800.4(a)(4). Reclamation consulted with the State Historic Preservation Officer (SHPO) on July 28, 2010 regarding a findings of no adverse effects to historic properties affected pursuant to 36 CFR Part 800.5(b). Reclamation also consulted with the Fort Bidwell Indian Community on the same basis as the SHPO on July 29, 2010 pursuant to the regulations at 36 CFR Part 800.3(d) since this project is located on Tribal lands. Concurrence from the SHPO and Fort Bidwell Indian Community to conclude the Section 106 compliance process is pending.

3.4.2 Environmental Consequences

No Action

Under the No Action alternative, Reclamation would not provide funds under ARRA for the purposes of establishing a new well. Conditions related to cultural resources would remain the same as existing conditions. There would be no impacts to cultural resources under the No Action alternative.

Proposed Action

The Proposed Action is the type of activity that has the potential to affect historic properties. A records search, pedestrian survey, and Tribal consultation identified three cultural resources: an occupation site/lithic scatter (CA-MOD-440), a historic refuse scatter (FTS-1), and a historic water storage tank (FWS-1). Sites FTS-1 and FWS-1 will be avoided by all project activities. Given the nature of the relocated portions of site CA-MOD-440, and that the potential power line route will be located within the existing dirt road, Reclamation concluded that there will be no adverse effects to the site as a result of implementing the Proposed Action. Since there will be no adverse effects to historic properties, no cultural resources will be impacted as a result of implementing the proposed action.

Cumulative Effects

The Proposed Action has the potential to affect cultural resources on the Rancheria. Since Reclamation determined that there will be no adverse effects to historic properties, no cultural resources would be impacted as a result of implementing the Proposed Action. Reclamation consulted with the SHPO on July 28, 2010, as well as with the Fort Bidwell Indian Community on July 29, 2010 on the same basis as the SHPO since this project is located on Tribal lands, regarding this determination. Concurrence from the SHPO and Fort Bidwell Indian Community is pending. The project will not be implemented until the Section 106 compliance process has been completed.

3.5 Water Resources

3.5.1 Affected Environment

Surface Water. The project area is located on the eastern side of the Warner Mountains. Although the project area is in the rain shadow, three perennial streams cross Tribal lands. Soldier, Venning and Bidwell creek course from west to east through a portion of the Reservation.

Groundwater. The project area is located in the Surprise Valley groundwater basin. The water-bearing formations consist of alluvium, alluvial fan and lake deposits. Re-charge is from infiltration of surface water into the base of the alluvial fans that are located below the mouths of canyons along the base of the Warner Mountains (DWR, 2010). As this region of California is generally arid, annual precipitation amounts have a bearing on groundwater re-charge rates.

3.5.2 Environmental Consequences

No Action

Under the No Action alternative, Reclamation would not provide funds under ARRA for the purposes of establishing a new well and water storage tanks for fire suppression purposes. Without the additional infrastructure, in the event of drought or wildfire, the Tribe may be unable to provide reliable drinking water, or sufficient water for fire suppression. There would be no impacts to water resources under the No Action alternative.

Proposed Action

The Proposed Action is for Reclamation to provide ARRA funds to the Tribe to establish a new well and water storage tanks for fire suppression purposes. The Tribe currently receives all water from surface streams. Although no project-level design has been completed for this project, there is potential for water pipelines to be constructed along existing access roads and across Soldier Creek. Pipeline corridors A and B would traverse mostly undisturbed portions of Soldier Creek. There is potential for increased sedimentation into the creek during construction. To minimize the potential to impact the Creek, the pipeline installation could use the 'jack and bore' technique which would go underneath the creek bottom, or by construction of concrete

buttresses to ‘bridge’ the pipelines over the creek bed. Neither of these methods completely eliminates potential disturbance to the Creek, as adjacent vegetation would be removed to accommodate the pipeline. Although a 100 foot wide corridor has been identified, impacts would most likely be confined to approximately 30 feet. Loss of scrub or brush vegetation could increase light penetration, slightly increasing water temperature. The loss of vegetation adjacent to the streamside could also increase erosion and sedimentation. As grasses and other plants return to the area over time, this potential would be reduced. Best management practices would be used to minimize potential sedimentation.

Cumulative Effects

The Proposed Action is for Reclamation to provide ARRA funds to the Tribe to establish a new well and water storage tanks for fire suppression purposes. Implementation of the Proposed Action would result in a negligible increase in the amount of draft of groundwater. The Proposed Action would supply water for fire suppression purposes, and not for other uses such as residential, business or agricultural purposes. The Proposed Action would have no significantly cumulative impacts on surface or groundwater.

3.6 Environmental Justice

3.6.1 Affected Environment

According to the U.S. Census, in 2000 Modoc County had a population of 9,449 people. Of that, 86% was white, as compared to the rest of the U.S. which was 75%. The American Indian population was 4%, as compared to the rest of the U.S. which was 0.9%. The median family income in Modoc County was \$35,978, as compared to \$50,046 for the rest of the U.S. Twenty-one percent of the population was below the poverty level (U.S. Census, 2000).

3.6.2 Environmental Consequences

No Action

Under the No Action alternative, Reclamation would not provide funds under ARRA for the purposes of establishing a new well and water storage tanks for fire suppression purposes. Without the additional infrastructure, in the event of drought or wildfire, the Tribe may be unable to provide reliable drinking water, or sufficient water for fire suppression. There would be no impacts to environmental justice under the No Action alternative.

Proposed Action

The Proposed Action is for Reclamation to provide ARRA funds to the Tribe to establish a new well and water storage tanks for fire suppression purposes. The Proposed Action would not disproportionately affect minority or low-income communities. There would be a negligible increase in employment and income for the Tribe associated with this project, which would be entirely beneficial.

Cumulative Effects

The Proposed Action is for Reclamation to provide ARRA funds to the Tribe to establish a new well and water storage tanks for fire suppression purposes. The Proposed Action would have no cumulative impact on environmental justice.

3.7 Indian Trust Assets

3.7.1 Affected Environment

Indian Trust Assets (ITAs) are legal interests in property or rights held in trust by the United States for Indian Tribes or individuals. Trust status originates from rights imparted by treaties, statutes, or executive orders. These rights are reserved for, or granted to, tribes.

Reclamation's policy is to protect ITAs from adverse impacts resulting from Reclamation programs and activities whenever possible. Types of action that could affect ITAs include an interference with the exercise of a reserved water right, degradation of water quality where there is a water right or noise near a land asset where it adversely affects uses of the reserved land.

The Fort Bidwell Indian Community is an Indian Trust Asset and consists of approximately 3,500 acres of federal trust land (Figure 1).

3.7.2 Environmental Consequences

No Action

Under the No Action alternative, Reclamation would not provide funds under ARRA for the purposes of establishing a new well and water storage tanks for fire suppression purposes. Without the additional infrastructure, in the event of drought or wildfire, the Tribe may be unable to provide reliable drinking water, or sufficient water for fire suppression. There would be no impacts to ITAs under the No Action alternative.

Proposed Action

The Proposed Action is for Reclamation to provide ARRA funds to the Tribe to establish a new well and water storage tanks for fire suppression purposes. Reclamation has determined that the Proposed Action would not impact the Fort Bidwell Indian Community (an ITA). Any affect on the Tribe would be entirely beneficial with a negligible increase in employment and income associated with implementation of the Proposed Action.

Cumulative Effect

The Proposed Action is for Reclamation to provide ARRA funds to the Tribe to establish a new well and water storage tanks for fire suppression purposes. The Proposed Action would have no cumulative impact on ITAs.

4.0 Growth-Inducing, Irreversible and Irretrievable Commitments of Resources

4.1 Growth-Inducing Effects

The purpose of the project is for Reclamation to provide ARRA funds to the Tribe for the purposes of drilling test wells, making one test well operable, installing water storage tanks, electrical power and pipelines. The Proposed Action would not directly remove obstacles to growth, result in population increases, or encourage and facilitate other activities that could significantly affect the environment. It is anticipated that land use in the project area would remain the same; therefore, there would be no growth-inducing effects as a result of construction of the proposed alternative.

4.2 Irreversible and Irretrievable Commitment of Resources

The purpose of the project is for Reclamation to provide ARRA funds to the Tribe for the purposes of drilling test wells, making one test well operable, installing water storage tanks, electrical power and pipelines. The installation would require equipment such as a drill rigs, excavator, and backhoe which consumes fossil fuels, and water pipeline and submerged pumps which consumes metals such as aluminum and copper. For the operation of the wells, electrical supplied to the wells requires energy that could be supplied by hydropower, renewable sources, or burning of fossil fuels. The water storage tanks would be purchased from a commercial vendor, and most likely made from polyethylene material which consumes fossil fuels.

5.0 Consultation and Coordination

5.1 Federal Laws and Executive Orders

The following federal laws were considered during the preparation of this EA and the evaluation of the potential impacts from the Proposed Action.

5.1.1 Endangered Species Act (16 USC. 1521 et seq.)

Section 7 of this Act requires Federal agencies to ensure that all federally associated activities within the United States do not jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of the critical habitat of these species. Action agencies must consult with the U.S. Fish and Wildlife Service, which maintains current lists of species that have been designated as threatened or endangered, to determine the potential impacts a project may have on protected species. Reclamation has determined that the Proposed Action would have “no effect” on federally proposed or listed threatened and endangered species or their proposed or designated critical habitat. No further consultation is required under Section 7 of the Endangered Species Act.

5.1.2 Migratory Bird Treaty Act (16 USC § 703 ET SEQ.)

The Migratory Bird Treaty Act implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the Act, the Secretary of the Interior (Secretary) may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg would be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits and migratory flight patterns. Implementation of the Proposed Action, specifically construction of trenches for underground powerlines and/or water pipelines, could result in the loss of some trees, potentially used for nesting by migratory birds.

5.1.3 National Historic Preservation Act (16 USC 470 et seq.)

The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation which outlines the Federal Government’s responsibility to cultural resources. Section 106 of the NHPA requires the Federal Government to take into consideration the effects of an undertaking listed on cultural resources on or eligible for inclusion in the National Register of Historic Places (National Register). Those resources that are on or eligible for inclusion in the National Register are referred to as historic properties.

5.1.4 Environmental Justice (Executive Order 12898)

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, as amended, directs federal agencies to develop an Environmental Justice Strategy that identifies and addresses disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. According to the Council on Environmental Qualities guidance, agencies should consider the composition of the affected area to determine whether minority populations, low-income populations, or Indian tribes are present in the area affected by the proposed action, and if so where there may be disproportionately high and adverse environmental effects. The Proposed Action could have a negligible beneficial impact on environmental justice by temporarily increasing employment and income during installation of the new wells. The Proposed Action would provide a source of water for fire suppression, and not affect the Tribes source of potable water used for drinking purposes.

6.0 List of Preparers

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Appendix A

Photos



Adjacent to Cemetery. Potential Well Site.



Soldier Creek looking east.



Soldier Creek Looking West



Existing Water Storage Tank (also note in background non-functional Storage Tank from fort era)



**Looking North from the Existing Water Storage Tank.
Potential Pipeline and Power Corridor.**



Looking toward potential site for New Water Storage Tanks.